ARIZONA WILLOW
CONSERVATION AGREEMENT AND STRATEGY

APPENDIX D

FOREST SERVICE COMMUNICATIONS REGARDING DISCOVERY OF ARIZONA WILLOW IN UTAH

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721

HERBARIUM
COLLEGE OF AGRICULTURE

November 20, 1975

Mr. Carl-Eric Granfelt
P. O. Box 338
Whiteriver, Arizona 85941

Dear Carl-Eric:

The Salix you left with us appears to be a new one. Your specimen 69-191, identified as Salix pseudocordata Anderss., was annotated in 1974 by Robert Dorn as Salix arizonica Dorn and was designated by him as the holotype. Unfortunately I have not been able to find any published description of this new species but your most recent specimen compares favorably with 69-191 and the other specimens from Baldy collected by others and previously identified as S. pseudocordata but also annotated to S. arizonica by Dorn.

The mint is Stachys rothrockii Gray, as previously determined.

Sincerely,

Caryl

Caryl L. Busman
Research Assistant
Herbarium

14 June 1993

Dr. Ben Franklin
Utah Natural Heritage Program
1636 West North Temple, Ste. 316
Salt Lake City, UT 84116-3193

Dear Dr. Franklin:

I have recently seen a specimen, which appears to be Salix arizonica, from Utah. If this report is correct it would be the first report of this federally listed species from outside of Arizona (were it is known only from the White Mountains).

Unfortunately the herbarium label data are very indadequate. The specimen is in the U.S. Forest Service Service Herbarium, now housed at the Rocky Mountain Herbarium. The label is a U.S. Forest Service label with the number 11394. There is no collector's name but collection mumber is given as 80. The locality is given as Sevier Forest, 10,000 feet, and the collection was made on 5 August 1913. Other information on the label is "Clay and black soil loam. Moist meadow, abundant in places, and browsed by sheep and stock." All of these comments could apply to S. arizonica.

It would be very interesting if we could relocate the place in which this collection was made. S. arizonica is closely related to S. boothii and the population may prove to be that species, but the vegetative specimen we have looks exactly like S. arizonica.

There is the possibility that Sevier Forest has been relocated since 1913 so that should be taken into consideration.

Please let me know if you are interested in following up on this.

Sincerely,

George Argus,
Research Scientist

June 8, 1994

Mr. Jon Cooley
Endangered Species Coordinator
White Mountain Research Enterprize
White Mountain Apache Tribe
P.O. Box 220
White River, Arizona 85941

Dear Mr. Cooley:

Dr. George Argus and Dr. Bob Dorn, experts in the genus Salix, recently informed us of a historic 1913 collection of Salix arizonica from the Dixie National Forest in southern Utah. No recent collections of this species have been made from Utah. However, some of the suitable habitat on the Dixie and Manti-LaSal National Forests are not well known botanically and there is a high likelyhood the willow is still present.

Because of the proposed rule to list this species under the Endangered Species Act (ESA) and the requirements under Section 7 of ESA we are trying to assemble as much information on the species as possible to assist us in completing surveys this year. Dr. Argus suggested we contact Eric Ganfelt for information on the willow and it is through Eric that we became aware of your populations and the possibility of visiting a few of these sites.

Your assistance at this time would be a tremendous help to us in getting a better idea of the specific habitats the species occupies and the morophology of the willow. This would better enable us to train field crews completing the surveys starting in early July. If we can find additional populations on the Dixie NF and also the Manti-LaSal these data would be very important in the Fish and Wildlife Service final rulemaking process. If a significant number of populations are located in Utah this should result in less stringent protection requirements for the Arizona populations...

If you are amenable to hosting a field trip we would like to propose the following: 1) Utah Forest Service botanists would travel to Arizona June 27th and be available for a trip(s) June 28-29th on the White Mountain Apache Tribal Lands, 2) Utah Forest Service participants would be myself (Intermountain Regional Botanist), Ron Rodriguez (Dixie National Forest TES Coordinator), Dave Whittekiend (Dixie National Forest Botanist), and Robert Thompson (Manti-LaSal National Forest Botanist), 3) if permisiable we would like to take photographys of the species and notes on its habitat and species morophology, 4) we would secure lodging in Pinetop, Arizona the night of June 27 and 28th. Any other participants would be at your discretion.

If these dates conflict with your schedule we can adjust accordingly. We have the entire week available or could come at another time. Our field crews will be starting July 5 and so the week of June 27-July 1 would work best for us. I have enclosed a copy of the label information for the Utah collection of Salix arizonica.

United States Department of Agriculture | Forest Service | Intermountain Region | 324 25th Street Ogden, UT 84401-2310

File Code: 2670
Route To:

Date: November 9, 1994

Subject: Interagency Conservation Strategy/Agreement for Arizona Willow

To: Forest Supervisor's Dixie, Fishlake, and Apache Sitgreaves NF's

Our Fish, Wildlife, and Rare Plant Directors have briefed us on your September 26 meeting in Albuquerque and the October 12-13 meeting in Flagstaff, Arizona, with the U.S. Fish and Wildlife Service (FWS).

We appreciate your strong commitment to work with the FWS in developing legal, and other protective mechanisms, that remove threats to Arizona willow which will prevent the need for federal listing.

We are aware of the tight time frames (December 15, 1994 and April 30, 1995) required to immediately implement the actions discussed and agreed on. Good working relationships, coordination and trust will be key components for this to succeed.

Implementation of these actions and development of the conservation strategy and agreement will require a commitment of time, personnel and funds. It is our understanding that Tom Subridge, Ron Rodriguez and Robert Campbell will be key Forest players in developing the conservation strategy and providing technical support for implementing specific actions needed on your Forest.

We would like monthly updates on the progress being made. You have our full support and the assistance of our Regional botanists in this important conservation effort. The success of this effort goes beyond the conservation of the Arizona willow, for you are "Breaking New Ground" in our cooperative efforts to conserve species. Your efforts will serve as a "blueprint" for conservation of other species and ecosystems. It also will serve as a major effort to implement the intent of our recently signed National MOU for species conservation.

/s/ Jack A. Blackwell (for)
DALE N. BOSWORTH
Regional Forester,
Intermountain Region

/s/ Charles W. Cartwright, Jr.
CHARLES W. CARTWRIGHT, JR.
Regional Forester,
Southwestern Region

cc:
Fish & Wildlife Service, Phoenix, AZ
Fish & Wildlife Service, Albuquerque, NM
Fish & Wildlife Service, Salt Lake City, UT
L.Fisher:r03a
D.Atwood:r04a

D.Atwood:DDE: 10/20/94

United States Department of Agriculture | Forest Service | Intermountain Region | 324 25th Street Ogden, UT 84401

Reply to: 2670

Date: MAR 08 1994

Subject: Proposed Rule to List Salix arizonica as an Endangered Species

To: Utah Forest Supervisors

In November 1992, the U.S. Fish and Wildlife Service (FWS) published a proposed rule to list Arizona willow (Salix arizonica Dorn) as endangered (hard copy being sent under separate cover).

Based on data available to the FWS in preparing the proposed rule, this species was thought to occur only in Apache County, Arizona. However, in the summer of 1993, Dr. George Argus identified a specimen from the Forest Service National collection as this species while working on a treatment of Salicaceae for the Flora of North America. This specimen was collected in the early 1900's from the Sevier National Forest at 10,500 feet elevation. The Sevier National Forest is currently that area administered by the Powell RD, Dixie National Forest.

Current data on this species from Arizona documents occurrences at elevations above 8,500 feet in wet meadows, streamsides and cienegas. Most plants have been found in or adjacent to perennial water. Populations also occur in meadows adjacent to forest edges or meadows with sparse stands of Engelmann spruce, and in drier sites in riparian areas.

Based on the historic collection from Utah and the above habitat data from Arizona populations, suitable habitat for this species occurs on the Utah Forests, primarily the Dixie and Manti-LaSal NF's. The disjunct distribution of this species in Arizona and southern Utah is not an unusual pattern for high elevation riparian plants. Primary suitable habitat in Utah would be habitats similar to those in Arizona above 8,500 feet. Areas in Utah where this species is mostly likely to occur would be all of the Dixie National Forest where the above habitat conditions and the following indicator species are present. Areas on the Manti-LaSal NF would be the Abajo and LaSal Mountains in the southern part of the Forest.

Key indicator plant species associated with the Arizona populations which also occur in southern Utah are Salix monticola, S. geyerana, Picea pungens, Potentilla fruticosa, P. diversifolia, Deschampsia caespitosa, Festuca ovina and associated Carex species.

Due to the scarcity of data on the Utah "Sevier Forest" collection, Utah is not being designated as critical habitat at this time and will not be included in the final rule (Brent Palmer FWS pers. comm. March 94).

Primary threats to the species have been identified as livestock grazing, timber harvesting, road building and rust disease on plants with low vigor.

Some, if not all, suitable habitat in southern Utah will be included within the historic range of Arizona willow (Brent Palmer and Larry England, FWS pers. comm. March 1994).

Arizona willow is mostly a small, prostrate shrub from a few inches to 2 feet tall (up to a meter + in some vigorus, healthy plants). Key characters for identification are the leaves and current year's growth. The leaves are heart-shaped, with fine serrations along the leaf margins and a cordate base. The cordate-base is not evident until about mid-growth. The current year's stems are bright red but become lighter as the season progresses. The stems commonly have 2-6 leaves. This species is related to and can be confused with S. boothii in morphology.

Current status of Arizona willow is still a proposed species for listing as endangered. The FWS has not completed the economic analysis for the proposed rule. Apparently a draft final rule has been prepared but is not being circulated outside the FWS at this time.

Current policy and ESA requirements apply to this species and any suitable habitat. A biological assessment will need to be completed for any project or other action in these suitable habitat areas.

If you have questions on this species or have need for further assistance, contact Duane Atwood (801-625-5599 or D.Atwood:R04a).

/s/ Paul W. Shields
For
WILLIAM R. BURBRIDGE
Director
Fisheries and Wildlife Management

cc:
FWS - England
Palmer
RF - Joslin
DRF - Cartwright
R&W - Winward
TM

FWL:Atwood:gsw:3/8/94

United States Department of Agriculture | Forest Service | Intermountain Region | 324 25th Street Ogden, UT 84401-2310

Reply to: 2670

Date: Sept. 19, 1994

Subject: Management of Proposed Arizona Willow Habitats and Riparian Areas in General on the Sevenmile Allotment, Fishlake NF

To: Forest Supervisor, Fishlake NF

Enclosed is information you requested at our August 24 meeting at your office to assist in making sound decisions on the Sevenmile Allotment. This information is based on pertinent natural resource data concerning the needs of healthy ecosystems. Also enclosed is a short summary of how and why our office became involved with this issue, as well as, recommendations concerning resolution of this issue.

We commend your efforts to instigate management approaches that have potential for correcting existing resource issues in this area, and will conserve the Arizona willow and the southwestern willow flycatcher, both of which are proposed for listing under the Endangered Species Act.

Preliminary measurements seem to indicate the ecological status in the Sevenmile allotment is early seral with one sample being late seral. These data are still being summarized but show the need for additional measurements to determine and document resource conditions in the entire drainage. We recommend additional measurements be made, both in the upland and riparian areas. Measurements may include: Greenline, Cross Section, Woody Species Regeneration and Utilization in the riparian areas and Nested Frequency, Site Analysis and Utilization in the uplands. We recommend continuous use grazing not be used; it does not work in our Region. Deferred and rest rotation systems are much more effective.

Our agency is committed to being a partner with the U.S. Fish and Wildlife Service and other agencies in the conservation of rare species and in preventing our actions from negatively impacting the viability of these species and their habitats. With the imminent threat to the Arizona willow, it is imperative that we provide adequate protection to known or suspected populations of these species, as well as, areas that may serve as suitable habitat for them. Since these and other species are part of whole ecosystems in this area, anything you do should address the long term needs of the entire Sevenmile ecosystem.

/s/ Robert W. Hamner for

DALE N. BOSWORTH
Regional Forester

Enclosures

REQUESTED RECOMMENDATIONS

Recommendations for LONG TERM Management of the Resources:

1. Vegetative communities will be managed for trends toward and maintenace of desired conditions. Desired conditions are described for riparian and the upland habitats where shrubs and herbaceous vegetation are prominent.

A. Riparian: key species for the identified riparian complex (herbaceous and/or woody) are present, reproducing, and are in high vigor in root, stem, and leaf length and basal area. (See Key Species List)

At least 85 percent ground cover in the riparian area, with 75 percent of the species being those of late seral ecological status for the complex in order to achieve wathershed and desirable habitat for riparian dependent species goals.

At least 95 percent of natural soil productivity is maintained. To meet this standard, a minimum of 90 percent of an activity area must be in a nondetrimentally disturbed condition, as defined by loss of biomass production caused by increased soil compaction, displacement, or puddling. Total soil resource commitment should not exceed 3 percent.

Streambanks should be at least 75 percent covered with native hydric and mesic species and/or rock characteristic of the complex.

Age class distribution of tall willows will include at least 25 percent of willows in the seedling/young age classes. Low to mid size willows (Arizona willow and wolf's willow) will be producing and maintaining healthy clones demonstrated by typical size, vigor, annual leader and catkin growth and production of viable seeds.

B. Uplands: Perennial grasses and desirable forbs will be maintained as the dominant understory species. Maintain mosaic of seral stages in the shrub and tree species in adjacent upland communities. Manage for at least 50% in either the late or Potential Natural Communities (PNC) seral ecological status. (See Key Species List)

2. Utilization Standards: We recommend adding a 6 inch stubble height, at the end of the growing season, to the Forest Plan Standards. Stubble height values will take precedence over percent utilization in monitoring.

Where this is different from the current Allotment Management Plan (AMP) and Forest Standards and Guidelines; appropriate involvement (e.g. interdisciplinary, public, permittees ...) and analysis must be conducted to make a quality decision (NEPA will be necessary and should begin immediately if decision is to be implemented next year).

Vigor on willow species should be monitored by measuring changes in cover, clone size, leader length at the end of the growing season, catkin and viable seed production per stem.

The use of ungulates in the Seven Mile drainage will be monitored and managed to provide for the desired conditions. Livestock and Big Game Management Plans will implement the requirements to achieve and maintain the described desired condition. Fenced exclosures may be necessary to quantify and qualify seasons and amount of use by species.

3. Long term actions should look at a "whole" ecosystem (for this AMP at least the size of the AMP, including NFS and other Public Lands).

Recommendations for SHORT TERM Management of the Resources:

1. All fence alternatives provide adequate protection for suitable Arizona Willow habitats in Sevenmile drainage (see enclosed maps/aerial photos and overlays).

2. All fence alternatives address Southwestern Willow Flycatcher (SWWF) potential habitats and potential impacts.

3. Fishlake NF complete surveys for Arizona Willow on the rest of the Forest (suitable habitats) this year before willows lose their leaves (generally frost initiates leaf drop).

4. Decision to fence can be covered by a Catagorical Exclusion 31.1b 1 "Orders issued pursuant to 36 CFR Part 261 - Prohibitions to provide short-term resource protection or to protect public health and saftey" (from FSH 1909.15 enclosed) provided further analysis, documentation and involvement (probably NEPA EA) is carried out to analyze effects of fence (e.g. better resource conditions and recovery, probable reductions in livestock numbers).

Conservation Measures identified by FWS to eliminate threats to Arizona willow

Short Term: (or immediate needs)

1. For all timber activities, in known or suitable Arizona willow habitat, establish a minimum of a 100 foot buffer (e.g., leave tree densities to benefit willows, no felling toward stream or willows). May need to periodically thin timber stands when they reach 30-60% canopy closure to maintain suitable habitat for the willows.

2. Construct a 3-way ungulate exclosure to determine elk and cattle use on Arizona willow.

3. Construct and maintain a riparian pasture the length and width of the Sevenmile riparian areas that provides protection for Arizona willow and other rare species in the riparian ecosystem.

4. Complete surveys of suitable habitat on the Fishlake to determine northern extent of populations, impacts, habitat condition and protective action needed to maintain species viability.

5. GPS all populations and complete R-4 sensitive species field form for all populations discovered and provide copies to the Natural Heritage Program and the FWS.

6. Establish bench mark areas in the uplands and riparian areas outside the fenced area for measuring ungulate utilization.

7. Develop interagency conservation strategy prior to December 15, 1994 (Larry England, Duane Atwood and Ron Rodriguez are currently working on this).

Long Term

1. If the proposed rule is withdrawn FS will maintain Arizona willow on the RF Sensitive Species List.

2. Complete BA/BE's on all project activities.

3. Designate essential habitat for the Arizona willow under authority of the RF for all areas essential for maintaining species viability.

4. Establish a long-term monitoring program to evaluate population and habitat trends, identify site-specific threats, and track any changes in the status of Arizona willow.

5. Work with Research (FS and University) to complete analysis of chemical and genetic diversity of Arizona willow populations throughout its range prior to designation of essential habitat.

6. Increase botanical expertise at the Forest level to develop and implement appropriate actions needed for Arizona willow and other listed and sensitive species on the Forest.

7. If moose now occupy or migrate into the Sevenmile drainage, establish monitoring studies to determine impacts on Arizona willow and take any actions necessary to eliminate these impacts.

8. As part of the NEPA process amend the Forest Plan to include protective measures and other conservation strategies necessary to protect Arizona willow and its habitat.

9. Designate Arizona willow as a management indicator for drainages on the Dixie and Fishlake National Forests with known or suitable habitat.

10. Ensure riparian fence and exclosure is maintained and in good repair before livestock enter allotments and throughout the grazing season.

11. Fund and implement yearly action tasks identified in the conservation strategy.

12. Develop a dispersed recreation plan for the Sevenmile drainage to reduce or eliminate ORV impacts.

BACKGROUND INFORMATION

The primary reason the Regional Office became involved in management strategies in the Sevenmile area was because the proposed ARIZONA WILLOW was found in this drainage earlier this year. Below is a brief background on the listing actions for this species, key issues and deadlines.

Arizona willow (Salix arizonica) was proposed for listing as endangered, with critical habitat, by the U.S. Fish and Wildlife Service (FWS) in November of 1992. FWS was not aware that the species occurred in Utah when the proposed rule was developed. The FWS was sued by several Arizona conservation groups in the spring of 1993 because the final rule was not published within the required timeframe (one year).

Forest Service R4 became aware of a 1913 historic collection recently identified as Arizona willow on the "Sevier Forest" in Utah during the fall of 1993. Arizona willow surveys on the Dixie NF in late June through August of 1994 resulted in discovery of several populations on the Dixie and Fishlake NF's.

The FWS was notified of the June discovery resulting in a hold of the final rule which was in the FWS Washington Office for final review and publication in the Federal Register. R4 hosted two intgeragency field trips to Utah to review the new information and the possibility of developing a conservation strategy (CS) rather than list the species.

An interagency technical team representing the FWS, FS, Apache Tribe, AZ Game and Fish, and Research met in Flagstaff on Aug. 12 to review the status of the willow and consider the issues in the development of a CS. The following deadlines and key issues surfaced:

1. By Dec. 15, 1994 the FWS must publish a notice to either withdraw the listing or re-open the comment period for another 30 days to allow Utah to comment. Final decision on listing is due by April 15, 1995

2. The FWS is under a lawsuit for having missed the deadline for listing. They have negotiated with the litigants for more time to consider new information.

3. The FWS will consider withdrawal of the final rule only if specific actions are immediately taken to remove and reduce site-specific threats.

4. The populations on the Apache-Sitgreaves NF are considered to be the most significantly threatened. Aggressive and immediate protection actions by the Apache-Sitgreaves, Dixie, and Fishlake NF's will be the key to whether this species becomes listed or not, especially actions by the Apache-Sitgreaves NF.

Concerns/Actions Needed:

1. Listing of the willow would require considerable cost and staffing for both the FWS and Forest Service to meet Endangered Species Act requirements.

2. Development of a CS would be less costly and should protect all riparian dependent species in the Arizona willow ecosystem.

3. Line Officers will be held accountable for CS implementation

4. Forests must implement protective measures to eliminate threats before December 15, 1994 in order to eliminate need for federal listing by FWS.

5. Short term and long term protective measures will need to be identified and agreed to in an interagency signed conservation agreement prior to April 15, 1995 (see list of conservation measures identified by the FWS to eliminate threats)

Because of the above mentioned issues and deadlines, an informal conferencing trip was scheduled to visit the Sevenmile area and talk about this and other issues. Below are highlights of this trip.

INFORMAL CONFERENCING TRIP TO FISHLAKE NF 8/26/94

Participants:

Dick Farrar	Robert Campbell	Bert Lowry	Gary Laing
Larry England	(USFWS)	Ron Rodriguez	Susan Linner (USFWS)
Tina Lanier	Seona Brown	Duane Atwood	Al Winward
Frank Gunnell			

Discussions:

The following topics were generally discussed:

1. General condition of the riparian areas, impacts from cattle, gophers, fishermen, past livestock grazing, elk grazing.

2. Past and present management of the allotment.

3. Reasons and thoughts about Forest request and receipt of $50,000 to build a fence in the Sevenmile area.

4. Continuing controversy surrounding Sevenmile area.

5. Possible impacts to livestock permittees, and previous discussions with them regarding this allotment and potential solutions.

6. Opportunity to do an ecosystem approach to manage the riparian system as a whole, reduce expected impacts to uplands, reduce probable future fencing needs because of general condition of aquatic/riparian system in the area and probable failure of "corridor fence" to solve some of these problems.

7. Lack of range administration and lack of compliance by permittees.

<u>Decisions or Actions Discussed/Needed:</u>

1. Dick Farrar will brief FS on field tour. [done]

2. Forest Supervisor will discuss need for help with Dixie FS. [done]

3. If Ron Rodriguez is available we could GPS populations of Salix arizonica SW willow Flycatcher and the boundary for an ecosystem/corridor fence with possible assistance of Duane Atwood and Larry England. [done]

4. FWS draft strategy for protection and implementation of conservation strategy identifies the need for the Dixie, Apache-Sitgreaves, and Fishlake NF's to acquire botanical skills in order to implement the strategy and complete yearly monitoring studies.

5. FWS conservation measures require designation of essential habitat for Salix arizonica on the Apache-Sitgreaves, Dixie, and Fishlake NF's. These will require Regional Forester's signature's.

6. Duane Atwood will contact Bob Thompson to confirm his assistance. 8/30-31 [done]

7. RO review aerial photo work of Sevenmile done by Andy Godfrey. [done]

8. Al Winward provide summary of pros and cons on riparian ecosystem vs corridor fence in Sevenmile. [see below]

9. Bob Campbell to review forest plan standards for grazing in Sevenmile and provide summary to RO. [done]

10. Forest will set up a meeting with the grazing association to reach a decision on the fence locations and grazing in Sevenmile.

11. District will build exclosures this fall and buy fencing material for entire Sevenmile fence this fall.

12. Forest will build Sevenmile fence before next grazing season and or before the livestock go on in 1995.

13. A ecosystem fence would be best but hard to sell to the grazing association; they would prefer to corridor fence part of riparian area.

Background Information:

1. Uplands at location visited were producing about 900 lbs/ac, with 1500 to 2500 lbs/ac potential. An estimated ninety percent of plants present are undesirable species (invader or increaser species that increase with excessive grazing pressure) resulting in production of desirable forage of about 10 perecent of potential.

2. Uplands are generally in an early seral stage and with current yearly grazing, insufficient litter is present to carry a fire.

3. Fire history shows fire cycle of about every 20-25 years in adjacent conifer but due to fire suppression this has not occurred in the past 100 years.

4. Forest plan standards for the uplands for a range in fair condition is 40% use of key species and 22% use on total vegetation. The standard for riparian areas in fair condition is 30% utilization rather than the 60-90% estimated for this years use to date.

5. If riparian and upland sites we visited in the allotment are representative of the overall allotment, then it is overstocked for current carrying capacity.

TWO (CONCEPTUAL) ALTERNATIVES PROPOSED FOR FENCE

ECOSYSTEM RECOVERY APPROACH (Fence major riparian area separate from uplands)

PROS

-Correct thing to do as it follows FS direction to manage based on ecosystem management concepts.
-Considers entire riparian ecosystem being impacted and is a better long term decision
-Is less expensive and considers not only the Arizona willow and SW willow flycatcher but all species present or that may be present in the general area.
-Better long term decision
-Greater opportunity to improve the hydrology for the entire 7-mile riparian system.
-Provides more suitable habitat for multiple species especially neotrop's.
-Greater potential for using intermittent livestock grazing, after restoration, as a tool in riparian management.
-Fencing of entire riparian area could result in a more rapid increase of the water table.
-Will protect some lateral seeps and drainages which will contribute to increase in water table and spread water over upper reaches and edges of riparian areas.
-Provide easier range administration and better visuals for the public.
-Would not require as intensive field surveys for Arizona willow or SW willow flycatcher this fall.
-Could increase fisheries resources quicker.

CONS

-More expensive in short term (FY 94-95)
-Will require greater reduction in livestock numbers during recovery period or shorter annual seasons-or both.
-Greater difficulty in getting agreement on fence line locations.
-Will cause change in historic grazing patterns.
-Will require more knowledge about the whole drainage, i.e. carrying capacity in the rest of the unfenced area.
-May require changes in the AMP and yearly operating plan.
-Will require yearly monitoring.
-Require more fence maintenance than presently done by permittees or Forest.

CORRIDOR APPROACH (Fence a narrow portion of the riparian area)

PROS

-Cheaper to build in the short term (FY 94-95)
-More palatable to grazing association and easier for Ranger to sell to due to less reduction in livestock numbers.
-Meets immediate needs for protecting Arizona willow, providing surveys are completed immediately and fences protect essential habitat.
-Can be completed with less cost and time
-Is in line with last discussions with grazing association by the Forest.
-Easier range administration than currently used since cattle won't have to be herded out of riparian areas constantly.

CONS

-Fence would probably need to be changed within the next few years due to discovery of many more riparian dependent species on the edge of listing, (e.g., in Arizona/New Mexico 120-130 riparian dependent species will probably be petitioned for listing). Fishlake habitats are similar and we would probably have to address these issues.
-Will not protect entire riparian area and may still have undesirable conditions and stream damage, especially on lateral seeps and streams outside the fenced areas.
-Requires more fence maintenance then previously done by permittees or Forest personnel.
-Will require immediate surveys for Arizona willow and time to GPS populations of willow and SW willow flycatcher.

Some Assumptions

1. What ever fence is built it will be effective in stopping impacts in the excluded areas.

2. Forest will determine carrying capacity outside fenced area before 1995 grazing season

3. Forest will complete annual monitoring in 3 way exclosure to determine ungulate use (elk/cattle and possibly moose).

4. If excessive elk or moose use is documented appropriate actions will be taken to reduce numbers or impacts (will require coordination with state).

5. Forest will do appropriate range administration to achieve proper use standards.

6. District will ensure livestock are removed when "proper use" is reached.

Decisions Made During the August 24-25 RO Trip to Fishlake and Sevenmile

1. Crews from Dixie, Manti-LaSal, NPS, Forest, and RO will help survey suitable Arizona willow habitat and work on level III riparian classification,

nested frequency and site analysis studies. RO will provide Forest with results of work completed on August 25.

2. RO will make recommendations and provide Forest recommendations from FWS on utilization standards, DFC's of Sevenmile and other protective actions for Arizona willow and SW willow flycatcher.

3. Forest will GPS populations of Arizona willow this fall.

4. Bert Lowery will map suitable habitat for the SW willow flycatcher.

5. Forest will complete the rest of the nested frequency studies (2 more).

6. Forest would use prior data on the level III riparian studies, soils, fisheries, and hydrology, along with the recent studies to determine current resource conditions and establish DFC's for the Sevenmile drainage. These data would be used to review and adjust grazing that will provide resource restoration.

7. Forest will build fences and ungulate exclosures this fall.

Studies Completed on August 25, 1994

1. Three green lines and cross sections in the Sevenmile riparian area.

2. One nested frequency in lower Sevenmile.

3. Three site analysis studies to determine ecological condition.

4. Willow surveys in approximately 1/2 of Sevenmile.

5. Mapping of known and suitable willow habitat.

6. Map of proposed fence line to protect Arizona willow and SW willow flycatcher habitat.

Key Indicator Species for Riparian Areas and Uplands

Riparian areas -Carex aquatilis, Deschampsia caespitosa, Salix arizonica
Uplands -Festuca idahoensis, Bromus carinatus, Elymus trachycaulus (previously Agropyron trachycaulum)

Key species listed in the Seven Mile Allotment Management Plan (1986):
Slender wheatgrass
Mountain brome
Idaho fescue
Tufted hairgrass
Water sedge

United States Department of Agriculture | Forest Service | Intermountain Region | 324 25th Street Ogden, UT 84401-2310

File Code: 2670 Date: April 19, 1995
Route To:

Subject: Regional Forester Sensitive Species List

To: Station Director, INT; and Forest Supervisors

Arizona Willow, a proposed endangered species, was located on the Dixie and Fishlake National Forests in 1994. This species is located in high elevation 8600-10,800 feet) riparian ecosystems.

A conservation agreement (CA) and conservation strategy (CS) has been completed by an interagency technical committee established by the R3 and R4 Regional Foresters and Fish and Wildlife Service (FWS). These conservation documents form the basis of a FWS Federal Register Notice to withdraw the proposed rule to list the species as endangered. The proposed withdrawal rule is scheduled for publication in April 1995.

Two of the immediate actions identified for completion in the conservation agreement and strategy for species protection in R4 are adding the Arizona Willow to the Regional Forester's Sensitive Species List, and designation of essential habitat (as defined in FSM 2670). Region 3 currently recognizes this species as a Regional Forester sensitive species. These two actions are key components that help FWS justify a withdrawal proposal.

Arizona Willow meets the two sensitive species listing criteria described in FSM 2670 and is being added to the Regional Forester's list as sensitive. This designation will be effective after the withdrawal rule by the FWS is published and the "proposed status" is no longer in affect. Endangered Species Act requirements are still applicable until after the effective date of the withdrawal, after which time FSM 2670 Sensitive Species requirements will apply.

Because Utah contains the largest Arizona Willow populations, designation and maintenance of essential habitat in Utah is critical to the protection of the species. Chromotography and DNA analysis will be completed in 1995 on populations throughout its range to determine the species genetic diversity. These analysis will be one of the primary data sources used by the Interagency Technical Committee for recommending essential habitat designations.

Recommendations for additions, deletions, and corrections to the current sensitive plant list have been received from several Forests. In order to keep this list current, please forward any additional recommendations (with documentation) for changes to the plant list to Duane Atwood in the Regional Office (DG address: R04A) by May 10. The Plant list was last revised in April 1994, so the intent of this request, is not to initiate a major revision but to make additions and deletions based on new information collected since April of last year.

Robert W. Hamner, for

DALE N. BOSWORTH
Regional Forester

The use of ungulates in the Seven Mile drainage will be monitored and managed to provide for the desired conditions. Livestock and Big Game Management Plans will implement the requirements to achieve and maintain the described desired condition. Fenced exclosures may be necessary to quantify and qualify seasons and amount of use by species.

3. Long term actions should look at a "whole" ecosystem (for this AMP at least the size of the AMP, including NFS and other Public Lands).

Recommendations for SHORT TERM Management of the Resources:

1. All fence alternatives provide adequate protection for suitable Arizona Willow habitats in Sevenmile drainage (see enclosed maps/aerial photos and overlays).

2. All fence alternatives address Southwestern Willow Flycatcher (SWWF) potential habitats and potential impacts.

3. Fishlake NF complete surveys for Arizona Willow on the rest of the Forest (suitable habitats) this year before willows lose their leaves (generally frost initiates leaf drop).

4. Decision to fence can be covered by a Catagorical Exclusion 31.1b 1 "Orders issued pursuant to 36 CFR Part 261 - Prohibitions to provide short-term resource protection or to protect public health and saftey" (from FSH 1909.15 enclosed) provided further analysis, documentation and involvement (probably NEPA EA) is carried out to analyze effects of fence (e.g. better resource conditions and recovery, probable reductions in livestock numbers).

Conservation Measures identified by FWS to eliminate threats to Arizona willow

Short Term:(or immediate needs)

1. For all timber activities, in known or suitable Arizona willow habitat, establish a minimum of a 100 foot buffer (e.g., leave tree densities to benefit willows, no felling toward stream or willows). May need to periodically thin timber stands when they reach 30-60% canopy closure to maintain suitable habitat for the willows.

2. Construct a 3-way ungulate exclosure to determine elk and cattle use on Arizona willow.

3. Construct and maintain a riparian pasture the length and width of the Sevenmile riparian areas that provides protection for Arizona willow and other rare species in the riparian ecosystem.

4. Complete surveys of suitable habitat on the Fishlake to determine northern extent of populations, impacts, habitat condition and protective action needed to maintain species viability.

5. GPS all populations and complete R-4 sensitive species field form for all populations discovered and provide copies to the Natural Heritage Program and the FWS.

6. Establish bench mark areas in the uplands and riparian areas outside the fenced area for measuring ungulate utilization.

7. Develop interagency conservation strategy prior to December 15, 1994 (Larry England, Duane Atwood and Ron Rodriguez are currently working on this).

Long Term

1. If the proposed rule is withdrawn FS will maintain Arizona willow on the RF Sensitive Species List.

2. Complete BA/BE's on all project activities.

3. Designate essential habitat for the Arizona willow under authority of the RF for all areas essential for maintaining species viability.

4. Establish a long-term monitoring program to evaluate population and habitat trends, identify site-specific threats, and track any changes in the status of Arizona willow.

5. Work with Research (FS and University) to complete analysis of chemical and genetic diversity of Arizona willow populations throughout its range prior to designation of essential habitat.

6. Increase botanical expertise at the Forest level to develop and implement appropriate actions needed for Arizona willow and other listed and sensitive species on the Forest.

7. If moose now occupy or migrate into the Sevenmile drainage, establish monitoring studies to determine impacts on Arizona willow and take any actions necessary to eliminate these impacts.

8. As part of the NEPA process amend the Forest Plan to include protective measures and other conservation strategies necessary to protect Arizona willow and its habitat.

9. Designate Arizona willow as a management indicator for drainages on the Dixie and Fishlake National Forests with known or suitable habitat.

10. Ensure riparian fence and exclosure is maintained and in good repair before livestock enter allotments and throughout the grazing season.

11. Fund and implement yearly action tasks identified in the conservation strategy.

12. Develop a dispersed recreation plan for the Sevenmile drainage to reduce or eliminate ORV impacts.

BACKGROUND INFORMATION

The primary reason the Regional Office became involved in management strategies in the Sevenmile area was because the proposed ARIZONA WILLOW was found in this drainage earlier this year. Below is a brief background on the listing actions for this species, key issues and deadlines.

Arizona willow (Salix arizonica) was proposed for listing as endangered, with critical habitat, by the U.S. Fish and Wildlife Service (FWS) in November of 1992. FWS was not aware that the species occurred in Utah when the proposed rule was developed. The FWS was sued by several Arizona conservation groups in the spring of 1993 because the final rule was not published within the required timeframe (one year).

Forest Service R4 became aware of a 1913 historic collection recently identified as Arizona willow on the "Sevier Forest" in Utah during the fall of 1993. Arizona willow surveys on the Dixie NF in late June through August of 1994 resulted in discovery of several populations on the Dixie and Fishlake NF's.

The FWS was notified of the June discovery resulting in a hold of the final rule which was in the FWS Washington Office for final review and publication in the Federal Register. R4 hosted two intgeragency field trips to Utah to review the new information and the possibility of developing a conservation strategy (CS) rather than list the species.

An interagency technical team representing the FWS, FS, Apache Tribe, AZ Game and Fish, and Research met in Flagstaff on Aug. 12 to review the status of the willow and consider the issues in the development of a CS. The following deadlines and key issues surfaced:

1. By Dec. 15, 1994 the FWS must publish a notice to either withdraw the listing or re-open the comment period for another 30 days to allow Utah to comment. Final decision on listing is due by April 15, 1995

2. The FWS is under a lawsuit for having missed the deadline for listing. They have negotiated with the litigants for more time to consider new information.

3. The FWS will consider withdrawal of the final rule only if specific actions are immediately taken to remove and reduce site-specific threats.

4. The populations on the Apache-Sitgreaves NF are considered to be the most significantly threatened. Aggressive and immediate protection actions by the Apache-Sitgreaves, Dixie, and Fishlake NF's will be the key to whether this species becomes listed or not, especially actions by the Apache-Sitgreaves NF.

Concerns/Actions Needed:

1. Listing of the willow would require considerable cost and staffing for both the FWS and Forest Service to meet Endangered Species Act requirements.

2. Development of a CS would be less costly and should protect all riparian dependent species in the Arizona willow ecosystem.

3. Line Officers will be held accountable for CS implementation

4. Forests must implement protective measures to eliminate threats before December 15, 1994 in order to eliminate need for federal listing by FWS.

5. Short term and long term protective measures will need to be identified and agreed to in an interagency signed conservation agreement prior to April 15, 1995 (see list of conservation measures identified by the FWS to eliminate threats)

Because of the above mentioned issues and deadlines, an informal conferencing trip was scheduled to visit the Sevenmile area and talk about this and other issues. Below are highlights of this trip.

INFORMAL CONFERENCING TRIP TO FISHLAKE NF 8/26/94

Participants:

Dick Farrar	Robert Campbell	Bert Lowry	Gary Laing
Larry England	(USFWS)	Ron Rodriguez	Susan Linner (USFWS)
Tina Lanier	Seona Brown	Duane Atwood	Al Winward
Frank Gunnell			

Discussions:

The following topics were generally discussed:

1. General condition of the riparian areas, impacts from cattle, gophers, fishermen, past livestock grazing, elk grazing.

2. Past and present management of the allotment.

3. Reasons and thoughts about Forest request and receipt of $50,000 to build a fence in the Sevenmile area.

4. Continuing controversy surrounding Sevenmile area.

5. Possible impacts to livestock permittees, and previous discussions with them regarding this allotment and potential solutions.

6. Opportunity to do an ecosystem approach to manage the riparian system as a whole, reduce expected impacts to uplands, reduce probable future fencing needs because of general condition of aquatic/riparian system in the area and probable failure of "corridor fence" to solve some of these problems.

7. Lack of range administration and lack of compliance by permittees.

<u>Decisions or Actions Discussed/Needed:</u>

1. Dick Farrar will brief FS on field tour. [done]

2. Forest Supervisor will discuss need for help with Dixie FS. [done]

3. If Ron Rodriguez is available we could GPS populations of Salix arizonica SW willow Flycatcher and the boundary for an ecosystem/corridor fence with possible assistance of Duane Atwood and Larry England. [done]

4. FWS draft strategy for protection and implementation of conservation strategy identifies the need for the Dixie, Apache-Sitgreaves, and Fishlake NF's to acquire botanical skills in order to implement the strategy and complete yearly monitoring studies.

5. FWS conservation measures require designation of essential habitat for Salix arizonica on the Apache-Sitgreaves, Dixie, and Fishlake NF's. These will require Regional Forester's signature's.

6. Duane Atwood will contact Bob Thompson to confirm his assistance. 8/30-31 [done]

7. RO review aerial photo work of Sevenmile done by Andy Godfrey. [done]

8. Al Winward provide summary of pros and cons on riparian ecosystem vs corridor fence in Sevenmile. [see below]

9. Bob Campbell to review forest plan standards for grazing in Sevenmile and provide summary to RO. [done]

10. Forest will set up a meeting with the grazing association to reach a decision on the fence locations and grazing in Sevenmile.

11. District will build exclosures this fall and buy fencing material for entire Sevenmile fence this fall.

12. Forest will build Sevenmile fence before next grazing season and or before the livestock go on in 1995.

13. A ecosystem fence would be best but hard to sell to the grazing association; they would prefer to corridor fence part of riparian area.

Background Information:

1. Uplands at location visited were producing about 900 lbs/ac, with 1500 to 2500 lbs/ac potential. An estimated ninety percent of plants present are undesirable species (invader or increaser species that increase with excessive grazing pressure) resulting in production of desirable forage of about 10 perecent of potential.

2. Uplands are generally in an early seral stage and with current yearly grazing, insufficient litter is present to carry a fire.

3. Fire history shows fire cycle of about every 20-25 years in adjacent conifer but due to fire suppression this has not occurred in the past 100 years.

4. Forest plan standards for the uplands for a range in fair condition is 40% use of key species and 22% use on total vegetation. The standard for riparian areas in fair condition is 30% utilization rather than the 60-90% estimated for this years use to date.

5. If riparian and upland sites we visited in the allotment are representative of the overall allotment, then it is overstocked for current carrying capacity.

TWO (CONCEPTUAL) ALTERNATIVES PROPOSED FOR FENCE

ECOSYSTEM RECOVERY APPROACH (Fence major riparian area separate from uplands)

PROS

-Correct thing to do as it follows FS direction to manage based on ecosystem management concepts.
-Considers entire riparian ecosystem being impacted and is a better long term decision
-Is less expensive and considers not only the Arizona willow and SW willow flycatcher but all species present or that may be present in the general area.
-Better long term decision
-Greater opportunity to improve the hydrology for the entire 7-mile riparian system.
-Provides more suitable habitat for multiple species especially neotrop's.
-Greater potential for using intermittent livestock grazing, after restoration, as a tool in riparian management.
-Fencing of entire riparian area could result in a more rapid increase of the water table.
-Will protect some lateral seeps and drainages which will contribute to increase in water table and spread water over upper reaches and edges of riparian areas.
-Provide easier range administration and better visuals for the public.
-Would not require as intensive field surveys for Arizona willow or SW willow flycatcher this fall.
-Could increase fisheries resources quicker.

CONS

-More expensive in short term (FY 94-95)
-Will require greater reduction in livestock numbers during recovery period or shorter annual seasons-or both.
-Greater difficulty in getting agreement on fence line locations.
-Will cause change in historic grazing patterns.
-Will require more knowledge about the whole drainage, i.e. carrying capacity in the rest of the unfenced area.
-May require changes in the AMP and yearly operating plan.
-Will require yearly monitoring.
-Require more fence maintenance than presently done by permittees or Forest.

CORRIDOR APPROACH (Fence a narrow portion of the riparian area)

PROS

-Cheaper to build in the short term (FY 94-95)
-More palatable to grazing association and easier for Ranger to sell to due to less reduction in livestock numbers.
-Meets immediate needs for protecting Arizona willow, providing surveys are completed immediately and fences protect essential habitat.
-Can be completed with less cost and time
-Is in line with last discussions with grazing association by the Forest.
-Easier range administration than currently used since cattle won't have to be herded out of riparian areas constantly.

CONS

-Fence would probably need to be changed within the next few years due to discovery of many more riparian dependent species on the edge of listing, (e.g., in Arizona/New Mexico 120-130 riparian dependent species will probably be petitioned for listing). Fishlake habitats are similar and we would probably have to address these issues.
-Will not protect entire riparian area and may still have undesirable conditions and stream damage, especially on lateral seeps and streams outside the fenced areas.
-Requires more fence maintenance then previously done by permittees or Forest personnel.
-Will require immediate surveys for Arizona willow and time to GPS populations of willow and SW willow flycatcher.

Some Assumptions

1. What ever fence is built it will be effective in stopping impacts in the excluded areas.

2. Forest will determine carrying capacity outside fenced area before 1995 grazing season

3. Forest will complete annual monitoring in 3 way exclosure to determine ungulate use (elk/cattle and possibly moose).

4. If excessive elk or moose use is documented appropriate actions will be taken to reduce numbers or impacts (will require coordination with state).

5. Forest will do appropriate range administration to achieve proper use standards.

6. District will ensure livestock are removed when "proper use" is reached.

Decisions Made During the August 24-25 RO Trip to Fishlake and Sevenmile

1. Crews from Dixie, Manti-LaSal, NPS, Forest, and RO will help survey suitable Arizona willow habitat and work on level III riparian classification,